WE CLAIM:

1. A purified complex comprising a first polypeptide and a second polypeptide, wherein said first polypeptide comprises an amino acid sequence of a polypeptide selected from the group consisting of the polypeptides recited in Table 1, column 2, and wherein said second polypeptide comprises an amino acid sequence of the corresponding polypeptide recited in Table 1, column 3; or

said first and second polypeptide comprise the amino acid sequences of a first polypeptide-second polypeptide complex selected from the group consisting of NAPA1-IP2, NAPA1-SYN16, NAPA1-SNAP29, NAPA1-SYN4, NAPA1-LZIP, NAPA1-SNAP25A, PPP1CC-NOV1, PPP1CC-NOV2, PPP1CC-NOV3, PPP1CC-NOV4, PPP1CC-NOV5, PPP1CC-PPP1R5, PPP1CC-KIAA0305, PPP1CC-STAU, PPP1CC-53BP2, PPP1CC-PPP1R10, S100A1-NOV6, S100A1-NOV7, S100A1-NOV8, S100A1-fibrinogen, S100A1-RanBPM, S100A1-profilin II-SV, S100B-NOV9, S100B-NOV10, S100B-NOV11, S100B-fibrinogen, S100B-KIAA0629, S100B-ATP6N1, S100B-synphilin I, S100B-NQO2, S100B-FHOS, S100B-S100A9, and S100B-S100A6.

2. The complex of claim 1, wherein said first polypeptide is selected from the group consisting of the polypeptides recited in Table 1, column 2, and wherein said second polypeptide is the corresponding polypeptide recited in Table 1, column 3.

3. The complex of claim 1, wherein said first polypeptide is labeled.

4. The complex of claim 1, wherein said second polypeptide is labeled.

5. The complex of claim 3, wherein said second polypeptide is labeled.

6. The complex of claim 1, wherein said first polypeptide is selected from the group of polypeptides recited in Table 1, column 2, which are denoted in Protein Pair ID: 1-11, and wherein said second polypeptide is the corresponding polypeptide selected from the group consisting of the polypeptides recited in Table 1, column 3, which are denoted as Protein Pair 1-11.

7. The complex of claim 1, wherein said first polypeptide is selected from the group of polypeptides recited in Table 1, column 2, which are denoted in Protein Pair ID: 12-58, and wherein said second polypeptide is the corresponding polypeptide selected from the group consisting of the polypeptides recited in Table 1, column 3, which are denoted in Protein Pair ID: 12-58.

8. The complex of claim 1, wherein said first polypeptide is selected from the group of polypeptides recited in Table 1, column 2, which are denoted in Protein Pair ID: 12-24, and wherein said second polypeptide is the corresponding polypeptide selected from the group consisting of the polypeptides recited in Table 1, column 3, which are denoted in Protein Pair ID: 12-24.

9. The complex of claim 1, wherein said first polypeptide is selected from the group of polypeptides recited in Table 1, column 2, which are denoted in Protein Pair ID: 25-42, and wherein said second polypeptide is the corresponding polypeptide selected from the group consisting of the polypeptides recited in Table 1, column 3, which are denoted in Protein Pair ID: 25-42.

10. The complex of claim 1, wherein said first polypeptide is selected from the group of polypeptides recited in Table 1, column 2, which are denoted in Protein Pair ID: 43-58, and wherein said second polypeptide is the corresponding polypeptide selected from the group consisting of the polypeptides recited in Table 1, column 3, which are denoted in Protein Pair ID: 43-58.

11. The complex of claim 1, wherein said first and second polypeptide comprise the amino acid sequences of a first polypeptide-second polypeptide selected from the group consisting of NAPA1-IP2, NAPA1-SYN16, NAPA1-SNAP29, NAPA1-SYN4, NAPA1-LZIP, NAPA1-SNAP25A, PPP1CC-NOV1, PPP1CC-NOV2, PPP1CC-NOV3, PPP1CC-NOV4, PPP1CC-NOV5, PPP1CC-PPP1R5, PPP1CC-KIAA0305, PPP1CC-STAU, PPP1CC-53BP2, PPP1CC-PPP1R10, S100A1-NOV6, S100A1-NOV7, S100A1-NOV8, S100A1-fibrinogen, S100A1-RanBPM, S100A1-profilin II-SV, S100B-NOV9, S100B-NOV10, S100B-NOV11, S100B-fibrinogen, S100B-KIAA0629, S100B-ATP6N1, S100B-synphilin I, S100B-NQO2, S100B-FHOS, S100B-S100A9, and S100B-S100A6.

12. A purified complex comprising a first polypeptide and a second polypeptide, wherein said first polypeptide comprises a region of amino acids of a polypeptide selected from the group consisting of the polypeptides recited in Table 1, column 2 sufficient to allow said first polypeptide to bind said second polypeptide, and wherein said second polypeptide comprises a region of amino acids of the corresponding polypeptide recited in Table 1, column 3 sufficient to bind said first polypeptide.

13. A chimeric polypeptide comprising six or more amino acids of the first polypeptide of claim 1 covalently linked to six or more amino acids of the second polypeptide of claim 1.

14. A nucleic acid encoding the chimeric polypeptide of claim 13.

15. A vector comprising the nucleic acid of claim 14.

16. A cell comprising the vector of claim 15.

17. An antibody which specifically binds the complex of claim 1.

18. The antibody of claim 17, wherein said antibody binds to the complex of claim 1 with higher affinity than it binds to said first or second polypeptide when said polypeptides are not complexed.

19. A pharmaceutical composition comprising the complex of claim 1.

20. A kit comprising in one or more containers a reagent which can specifically detect the complex of claim 1.

21. The kit of claim 20, wherein said reagent is selected from the group consisting of an antibody specific for said complex, an antibody specific for said first polypeptide, and an antibody specific for said second polypeptide.

22. A method of identifying an agent which disrupts a polypeptide complex, the method comprising:

(a) providing the complex of claim 1;

(b) contacting the complex with a test agent; and

(c) detecting the presence of a polypeptide displaced from said complex,

wherein the presence of displaced polypeptide indicates said agent disrupts said complex.

23. A method for identifying an agent which disrupts a polypeptide complex comprising at least one vesicle trafficking-associated protein, phosphatase I protein, or calcium binding protein, the method comprising:

(a) providing the complex of claim 11;

(b) contacting said complex with a test agent; and

(c) detecting the presence of a polypeptide displaced from said complex,

wherein the presence of displaced polypeptide indicates said agent disrupts said complex.

24. A method for inhibiting interaction of a vesicle trafficking-associated protein, with a ligand, the method comprising:

contacting a complex comprising said protein and said ligand with an agent that disrupts said complex, wherein said complex is selected from the group consisting of NAPA1-IP2, NAPA1-SYN16, NAPA1-SNAP29, NAPA1-SYN4, NAPA1-LZIP, and NAPA1-SNAP25A,

thereby inhibiting interaction of said protein with said ligand.

25. A method for inhibiting interaction of a phosphatase I protein with a ligand, the the method comprising:

contacting a complex comprising said protein and said ligand with an agent that disrupts said complex, wherein said complex is selected from the group consisting of PPP1CC-NOV1, PPP1CC-NOV2, PPP1CC-NOV3, PPP1CC-NOV4, PPP1CC-NOV5, PPP1CC-PPP1R5, PPP1CC-KIAA0305, PPP1CC-STAU, PPP1CC-53BP2, and PPP1CC-PPP1R10,

thereby inhibiting interaction of said protein with said ligand.

26. A method for inhibiting interaction of a calcium binding protein with a ligand, said method comprising the step of:

contacting a complex comprising said protein and said ligand with an agent that disrupts said complex, wherein said complex is selected from the group consisting of

S100A1-NOV6, S100A1-NOV7, S100A1-NOV8, S100A1-fibrinogen, S100A1-RanBPM, S100A1-profilin II-SV, S100B-NOV9, S100B-NOV10, S100B-NOV11, S100B-fibrinogen, S100B-KIAA0629, S100B-ATP6N1, S100B-synphilin I, S100B-NQO2, S100B-FHOS, S100B-S100A9, and S100B-S100A6,
thereby inhibiting interaction of said protein with said ligand.

27. A method of identifying a polypeptide complex in a subject, the method comprising:
(a) providing a biological sample from said subject; and
(b) detecting, if present, the polypeptide complex of claim 1 in said sample,
thereby identifying said complex.

28. A method of detecting a polypeptide in a biological sample, the method comprising:
(a) providing a biological sample comprising the first polypeptide of claim 1;
(b) contacting said biological sample with the second polypeptide of claim 1 under conditions suitable for formation of a complex comprising said first and second polypeptides; and
(c) detecting the presence of the complex of said first and second polypeptide, wherein the presence of said complex indicates the presence of said first polypeptide in said sample.

29. A method of detecting a polypeptide in a biological sample, the method comprising:
(a) providing a biological sample comprising the second polypeptide of claim 1;
(b) contacting said biological sample with the first polypeptide of claim 1 under conditions suitable for formation of a complex comprising said first and second polypeptides; and
(c) detecting the presence of the complex of said first and second polypeptide, wherein the presence of said complex indicates the presence of said second polypeptide in said sample.

30. A method of removing a polypeptide from a biological sample, the method comprising:
(a) providing a biological sample comprising the first polypeptide of claim 1;
(b) contacting said biological sample with the second polypeptide of claim 1 under conditions suitable for formation of a complex comprising said first and second polypeptide; and

(c) removing said complex from said sample,

thereby removing said first polypeptide from said sample.

31. A method of determining altered expression of a polypeptide in a subject, the method comprising:

(a) providing a biological sample from said subject,

(b) measuring the level of the complex of claim 1 in said sample; and

(c) comparing the level of said complex from step (b) to the level of said complex in a reference sample whose level of the complex of claim 1 is known,

thereby determining whether said subject has altered expression of said first or second polypeptide.

32. A method of treating or preventing a disease or disorder involving altered levels of the complex of claim 1, the method comprising:

administering a therapeutically-effective amount of least one molecule that modulates the function of said complex to a subject in need thereof.

33. An isolated polypeptide comprising an amino acid sequence selected from the group consisting of:

(a) a mature form of an amino acid sequence encoded by the nucleic acid sequence selected from the group consisting of SEQ ID NOS:1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 12, and 13;

(b) a variant of a mature form of an amino acid sequence encoded by the nucleic acid sequence selected from the group consisting of SEQ ID NOS:1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 12, and 13, wherein one or more amino acid residues in said variant differs from the amino acid sequence of said mature form, provided that said variant differs in no more than 15% of the amino acid residues from the amino acid sequence of said mature form;

(c) an amino acid sequence encoded by the nucleic acid sequence selected from the group consisting of SEQ ID NOS:1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 12, and 13; and

(d) a variant of an amino acid sequence encoded by the nucleic acid sequence selected from the group consisting of SEQ ID NOS:1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 12, and 13 wherein one or more amino acid residues in said variant differs from the amino acid sequence of said mature form, provided that

said variant differs in no more than 15% of amino acid residues from said amino acid sequence.

34 The polypeptide of claim 33, wherein said polypeptide comprises the amino acid sequence of a naturally-occurring allelic variant of an amino acid sequence encoded by the nucleic acid sequence selected from the group consisting of SEQ ID NOS:1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 12, and 13.

35. The polypeptide of claim 34, wherein said allelic variant comprises an amino acid sequence that is the translation of a nucleic acid sequence differing by a single nucleotide from a nucleic acid sequence selected from the group consisting of SEQ ID NOS:1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 12, and 13.

36. The polypeptide of claim 33, wherein the amino acid sequence of said variant comprises a conservative amino acid substitution.

37. An isolated nucleic acid molecule comprising a nucleotide sequence selected from the group consisting of

(a) a nucleotide sequence selected from the group consisting of SEQ ID NOS:1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 12, and 13;

(b) a nucleotide sequence differing by one or more nucleotides from a nucleotide sequence selected from the group consisting of SEQ ID NOS: 1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 12, and 13, provided that no more than 20% of the nucleotides differ from said nucleotide sequence;

(c) a nucleic acid fragment of (a); and

(d) a nucleic acid fragment of (b).

38. The nucleic acid molecule of claim 37, wherein said nucleic acid molecule hybridizes under stringent conditions to a nucleotide sequence chosen from the group consisting of SEQ ID NOS: 1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 12, and 13, or a complement of said nucleotide sequence.

39. A vector comprising the nucleic acid molecule of claim 37.

40. The vector of claim 39, further comprising a promoter operably-linked to said nucleic acid molecule.

41. A cell comprising the vector of claim 40.

42. An antibody that immunospecifically-binds to the polypeptide of claim 33.

43.. The antibody of claim 42, wherein said antibody is a monoclonal antibody.

44. The antibody of claim 42, wherein the antibody is a humanized antibody.